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DOCUMENT-IDENTIFIER: US 5177532 A

TITLE: Image forming apparatus for  
adjusting gradation using  
subsidiary exposure

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INVENTOR-INFORMATION:

| NAME            | STATE | ZIP CODE | CITY     | COUNTRY |
|-----------------|-------|----------|----------|---------|
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|                 | N/A   | N/A      |          | JP      |

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| APPL-DATE | APPL-NO                     |
| JP        | 1-98089                     |
| 18, 1989  |                             |
| JP        | 1-101044                    |
| 20, 1989  |                             |

US-CL-CURRENT: 399/51, 355/38 , 355/77

ABSTRACT:

When to perform subsidiary exposure before or  
after main exposure or  
concurrently therewith with a quantity of light  
corresponding to about 1/50 to  
1/100 of the quantity of light of main exposure, an  
image forming apparatus

according to the present invention can automatically set the standard conditions of subsidiary exposure in response to setting of the standard conditions of main exposure, and can set the optimal conditions of colors and intensity of subsidiary exposure in accordance with the amount of adjustment of gradation. Therefore, even when variations arise in the characteristics and processing conditions of a light-sensitive material or any desired gradation is chosen, natural and fine images can always be formed with no color balance distorted.

15 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

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Detailed Description Text - DETX (7):

In an image forming apparatus according to a second aspect of the present invention, particularly of the scanning exposure type, since the characteristics and processing conditions of light-sensitive material and/or image receiving material vary, for the purpose of always forming optimal images, images are actually formed (at the time of machine installation, changing of the materials and processing conditions, periodic inspection, and so on) using a test chart or test pattern to

provide hard copies, the color  
density of these hard copies is measured by three  
primary color sensors of R,  
G, B included in an image sensor and compared with  
that of the test chart or  
pattern previously measured, and on the basis of  
the results of comparison, the  
standard conditions of color and/or intensity of  
main exposure, or the extent  
of insertion (.DELTA.Y, .DELTA.M, .DELTA.C,  
.DELTA.D) of color filter Y, M, C  
and aperture D into a light path (a reference value  
is set to "0", for example)  
are set.